

ASC2997C

**10 – 1000 MHz
Low Distortion Amplifier**

Features: (typical values)

- IP3 +51 dBm.
- Gain 27.8 dB.
- No external components required

Maximum Ratings

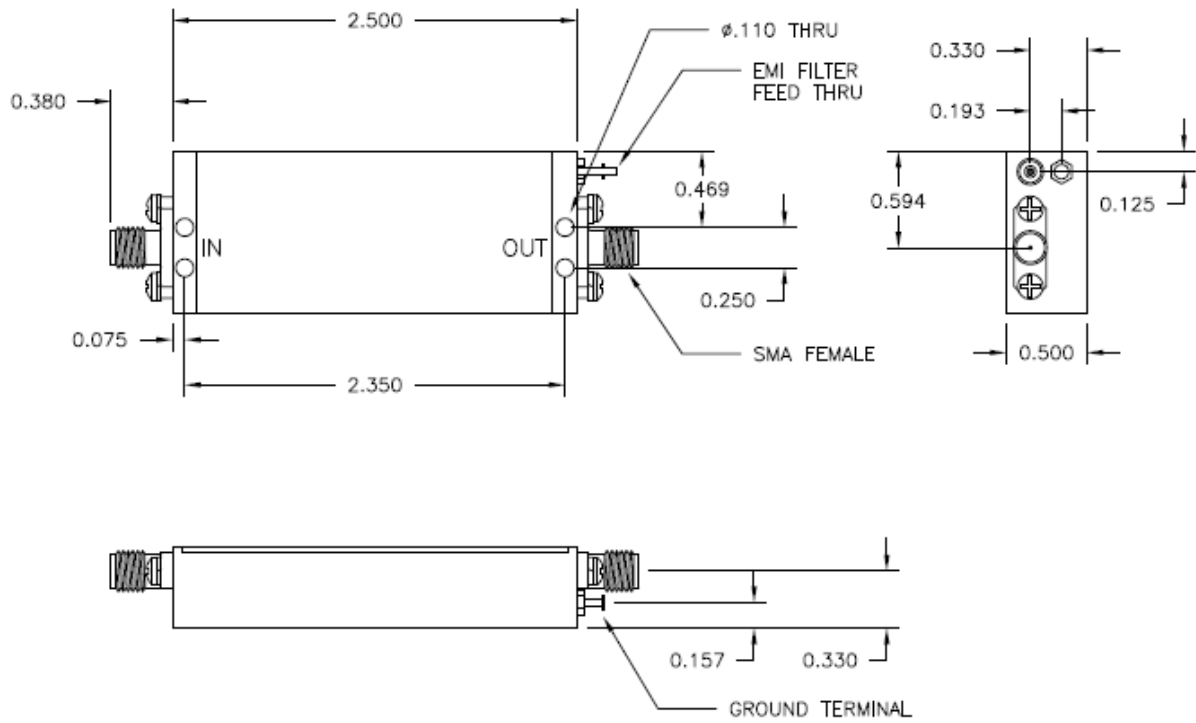
Operating Temperature 0°C to +85°C
 Non-Operating Temperature -40°C to +120°C
 DC Voltage +24volts
 RF Input Power 30 dBm.
 Case Temperature +100°C



Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		10	1000	MHz.
Gain	27.8	27	28	dB.
Gain Flatness Full Band	±0.25		±0.5	dB.
Pout @ P1dB	+33.5	+32		dBm.
Noise Figure 50-1000MHz	4.5		5.0	dB.
IP3 @ +20dbm per tone	+51	+48		dBm
IP2 @ +20dbm per tone	+76	+70		dBm
VSWR In/Out	1.6:1		2.0:1	Ratio
Impedance, Input/Output	50 Ohm			
Supply Required	+24/523		+24/550	v/mA.

OUTLINE



AMPLIFIER SOLUTIONS CORP.

DESCRIPTION: ASC2997C	CAGE CODE 32BZ0	SALES ORDER NO.	LOT NO.	
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FINAL ELECTRICAL TEST REPORT RECORD DATA @ +25°C ONLY

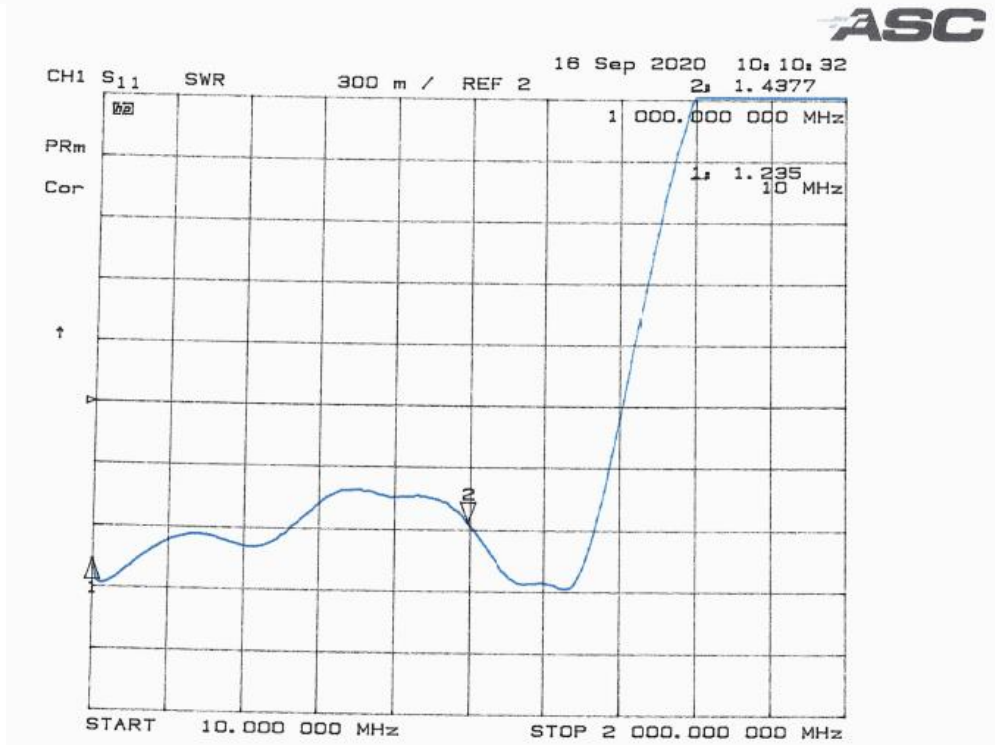
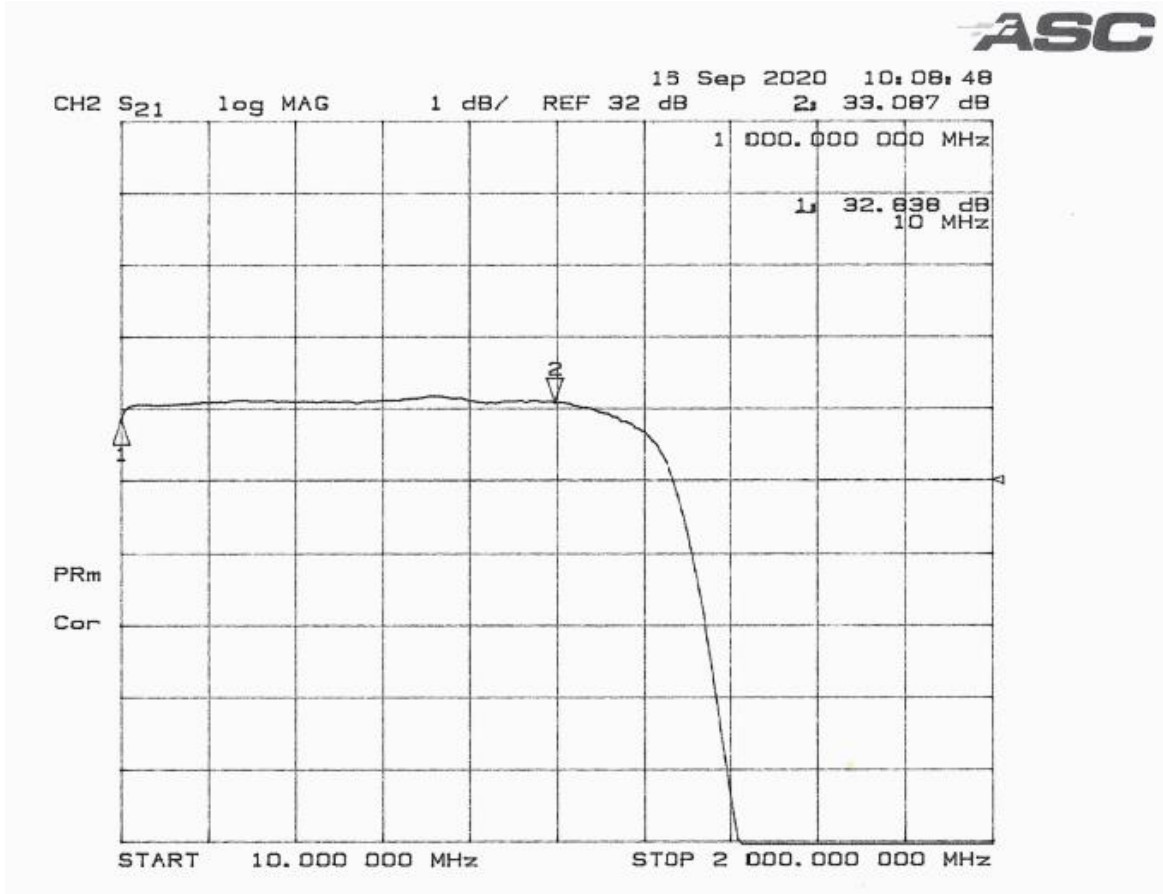
9/4/2020

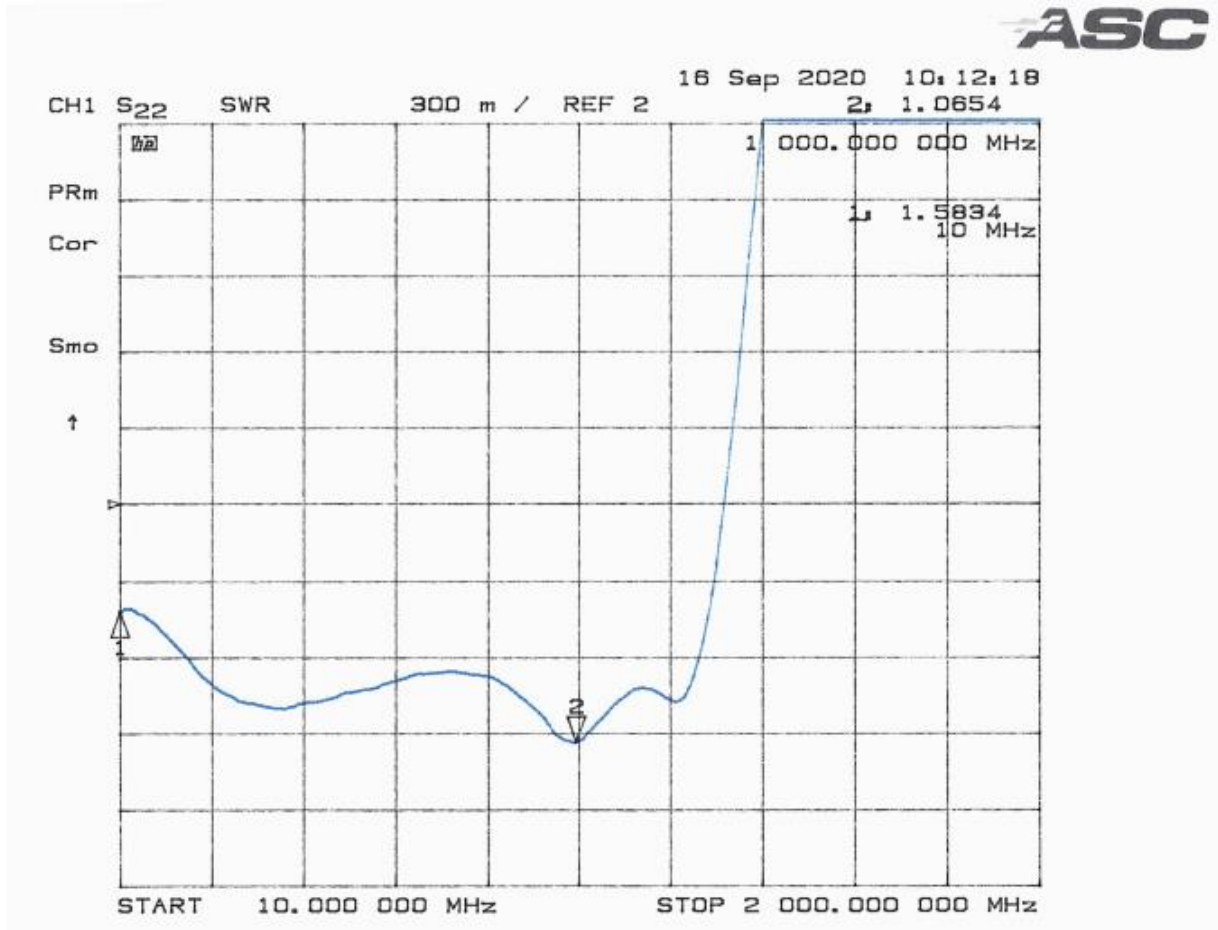
TEST Vdc +24V	LIMITS 0°C/+25°C/+85°C	DATA S/N	DATA S/N	DAT A S/N
Gain 10 MHz to 1000 MHz	27.0 dB min 28.0 dB max	27.3 27.8		
Gain Flatness 10 MHz to 1000 MHz	±0.5max	±0.25		
Spurious Response	Accept/Reject	AC		
DC Current at +24 Vdc	550 mA max	523		
Input VSWR 10 MHz to 1000 MHz	2.0: 1 max	1.6		
Output VSWR 10 MHz to 1000 MHz	2.0: 1 max	1.5		
Noise Figure 10 MHz to 1000 MHz	5.0 dB Max			
P 1.0 dB Compression 10 MHz to 1000 MHz	+ 32.0 dBm min			
IP3 with Pout = +22 & +12 dBm each tone		+22 +12		
1) F1/F2=10/11 MHz, Fc=9/12 MHz	+48.0 dBm min	49 46		
1) F1/F2=50/51 MHz, Fc=49/52 MHz		50 49		
1) F1/F2=500/501 MHz, Fc=499/502 MHz		51 49		
2) F1/F2=750/751 MHz, Fc=749/752 MHz		51 49		
3) F1/F2=999/1000 MHz, Fc=998/1001 MHz		51 49		
IP2 with Pout = +22 & +12 dBm each tone				
1) F1+F2=20MHz + 980MHz, Fc= 1000MHz	+70.0 dBm min	70 70		
2) F1-F2=1000MHz- 980MHz, Fc=20MHz		68 69		
1) F1+F2=500MHz + 501MHz, Fc= 1001MHz		76 78		
2) F1-F2=1000MHz- 499MHz, Fc=501MHz		69 72		
Stability Test. For all frequency range where S21 > 0dB	Pass/Fail	Pass		
Maximum Input power: no significant change in NF after +30 dBm @750 MHz applied to RF input	No change	N C		

RECORD SERIAL NUMBERS THAT PASS: _____

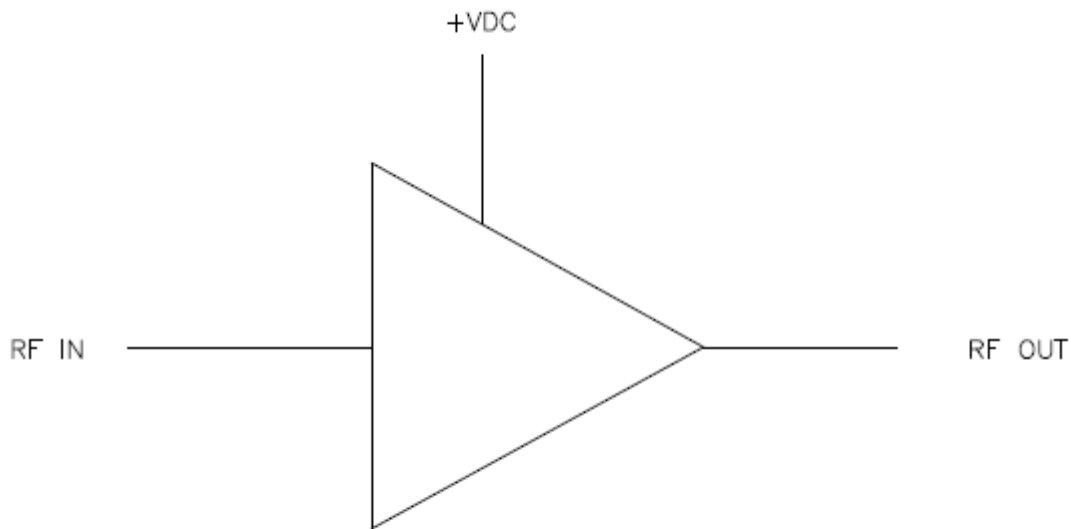
QTY TESTED:	QTY PASSED:	DATE:	OPERATOR:
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Fc	P1dB	NF
10 MHz	34.0	5.42
50MHz	34.0	4.36
250MHz	34.5	4.31
500 MHz	34.0	4.4
750 MHz	33.8	4.5
1000 MHz	33.4	4.65





FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED